WHAT IS CLAIMED IS:

1. A digital image album layout system comprising:

a page creator module having a first genetic engine operable to execute genetic evolution calculations on a first genetic population of image criteria, said page creator module having a page evaluation module operable to test said first genetic population for fitness to album preference criteria and

an image placement module having a second genetic engine operable to execute genetic evolution calculations on a second genetic population of page layout criteria, said image placement module having a layout evaluation module operable to test said second genetic population for fitness to page preference criteria.

2. An automated album layout method responsive to a set of inputs containing digital images, graphics, and other 2-dimensional objects, comprising the steps of:

evaluating a grouping of the image objects for distribution into a number of album pages according to a fitness function's parameters of a genetic engine;

assigning each image object to a page based on user preferences, including at least one of; balance, emphasis, chronology, and unity;

displaying said page for user viewing, and

refining the distribution based on further user action.

3. An automated layout and presentation method responsive to a set of inputs containing digital images, graphics, and other two-dimensional objects, comprising the steps of:

evaluating the 'x' and 'y' position coordinates, scale, and rotation of each of the input images objects within a page according to fitness function parameters in a genetic engine;

creating a page layout based on user preferences including at least one of;
white space, overlap, rotation, spatial balance, rotational balance, border symmetry,
and emphasis;

displaying said page layout for user viewing;

refining said page layout based on further user action, and

formatting the page layout printing.

4. A system for assigning images to album pages, comprising:

means for specifying an initial set of image page assignments to a genetic
population;

a genetic engine operable to evolve said genetic population to produce a
present set of image page assignments;

a page evaluation module operable to test said present set of image page
assignments according to an album fitness function to determine an album score, and

means for outputting said present set of image page assignments if said album
score meets an album threshold value.

5. A system for arranging images on an album page, comprising:

means for specifying an initial set of image placement parameters to a genetic
population;

a genetic engine operable to evolve said genetic population to produce a
present set of image placement parameters;

a layout evaluation module, operable to test said present set of image
placement parameters with a page fitness function to determine a page score, and

a means for outputting said image placement parameters if said page score
meets a page threshold value.

6. A system for assigning and placing images on album pages,
comprising:

means for specifying an initial set of image page assignments to a first genetic population;

a first genetic engine operable to evolve said first genetic population to produce a present set of image page assignments;

a page evaluation module operable to test said present set of image page assignments according to an album fitness function to determine an album score;

means for outputting said present set of image page assignments if said album score meets an album threshold value;

means for specifying an initial set of image placement parameters to a second genetic population in accordance with said outputted set of image page assignments;

a second genetic engine operable to evolve said second genetic population to produce a present set of image placement parameters;

a layout evaluation module operable to test said present set of image placement parameters with a page fitness function to determine a page score, and

means for outputting said image placement parameters if said page score meets a page threshold value.

7. A method of assigning images to album pages, comprising the steps of:

specifying an initial set of image page assignments to a genetic population;

evolving said genetic population to produce a present set of image page assignments;

testing said present set of image page assignments according to an album fitness function to determine an album score, and

outputting said present set of image page assignments if said album score meets an album threshold value.

8. A method of assigning a plurality of images, having image parameters, to one or more pages in an album, comprising the steps of:

specifying an initial set of page assignments defining the album page assignment for each of the plurality of images;

initializing a genetic population by assigning said initial set of page assignments to genes within an album genome structure;

evolving said genetic population in accordance with a genetic function to produce a present set of page assignments within said album genome structure;

calculating a present set of page criteria according to said present set of page assignments, the image parameters, and a set of album page parameters;

testing said present set of page criteria according to an album fitness function to determine an album score;

repeating said evolving and calculating steps if said album score fails to meet an album threshold value, and

outputting image page assignments according to said present page assignment if said album score meets said album threshold value.

9. The method of Claim 8 and wherein said image parameters include an image event value, image chronology value, and image emphasis value.

10. The method of Claim 8 and wherein said genome structure is a tree structure.

11. The method of Claim 8 and wherein said genome structure is selected from one of a tree structure, an array structure, or a list structure.

12. The method of Claim 8 and wherein said evolution step genetic function includes a genetic mutation function and a genetic crossover function.

13. The method of Claim 8 and wherein calculation of said page criteria includes calculation of an emphasis value range, a page count value, and a balance threshold value.

14. The method of Claim 8 and wherein said testing step further comprises the steps of:

comparing said page criteria to preference criteria and generating a preliminary album score and

scaling said preliminary album score in accordance with album importance parameters to produce a final album score.

15. The method of Claim 8 and wherein said page criteria includes balance, emphasis, chronology, and unity.

16. The method of claim 14 and wherein said preference criteria are based upon user preferences.

17. A method of arranging images on an album page, comprising the steps of:

specifying an initial set of image placement parameters to a genetic population;

evolving said genetic population to produce a present set of image placement parameters;

testing said present set of image placement parameters with a page fitness function to determine a page score; and

outputting said image placement parameters if said page score meets a page threshold value.

18. A method of arranging one or more images, having image parameters, on an album page, comprising the steps of:

specifying an initial set of positioning parameters for each of the one or more images;

initializing a genetic population by assigning said initial set of positioning parameters as genes in a page genome structure;

evolving said genetic population in accordance with a genetic function to produce a present set of positioning parameters within said page genome structure;

calculating a set of present layout criteria, according to said present set of positioning parameters, the image parameters, and a set of page layout parameters;

testing said present set of layout criteria according to a page fitness function to determine a page score;

repeating said evolving and calculating steps if said page score fails to meet a page threshold value; and

outputting a page layout according to said present set of positioning parameters if said page score meets said page threshold value.

19. The method of Claim 18 and wherein said image parameters include an image emphasis value.

20. The method of Claim 18 and wherein said genome structure is an array.

21. The method of Claim 18 and wherein said genome structure is selected from one of a tree structure, an array structure or a list structure.

22. The method of Claim 18 and wherein said evolution step genetic function includes a genetic mutation function and a genetic crossover function.

23. The method of Claim 18 and wherein calculation of said layout criteria includes calculation of at least one of white space area, image overlap, image rotation, spatial balance, rotational balance, border symmetry, and image emphasis values.

24. The method of Claim 18 and wherein said testing step further comprises the steps of:

comparing said layout criteria to layout preference criteria and generating a preliminary page score and

scaling said preliminary page score in accordance with page importance parameters to produce a final page score.

25. The method of Claim 18 and wherein said page criteria include at least one of page size, maximum image rotation, scaling range, white space range, overlap range, and border deviation.

26. The method of Claim 24 and wherein said layout preference criteria are based upon user preferences.

27. A method of assigning and placing images on album pages, comprising the steps of:

specifying an initial set of image page assignments to a first genetic population;

evolving said first genetic population to produce a present set of image page assignments;

testing said present set of image page assignments according to an album fitness function to determine an album score;

outputting said present set of image page assignments if said album score meets an album threshold value;

specifying an initial set of image placement parameters to a second genetic population in accordance with said outputted set of image page assignments;

evolving said second genetic population to produce a present set of image placement parameters;

testing said present set of image placement parameters with a page fitness function to determine a page score; and

outputting said image placement parameters if said page score meets a page threshold value.